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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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BAREFORD, KATHERINE A

ART UNIT	PAPER NUMBER
1792	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/501,399	OKOMORI ET AL.	
	Examiner	Art Unit	
	Katherine A. Bareford	1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 September 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *5-7 and 19-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *5-7 and 19-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/31/08, 8/27/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 25, 2008 has been entered.

The amendment filed with the RCE submission of September 25, 2008 has been received and entered. With the entry of the amendment, claims 1-4 and 8-18 are canceled, and claims 5-7 and new claims 19-24 are pending for examination.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 5-7 and 19-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

(A) Independent claim 5 was previously amended to provide that the "coating color is applied by a gate roll coater" (amendment of April 13, 2007). More details of the gate roll coater are added in the amendment of November 21, 2007. However, the only reference to a "gate roll coater" in the disclosure as originally filed is in reference to providing base papers precoated with materials by gate roll coaters, among other coating methods, to be used in the present invention (page 12, lines 12-16 of the specification). However, this reference does indicate that applicant was aware of gate roll coaters and could have claimed them or used the terminology of "gate roll coater" as to the present invention if it had been desired. Applicant further argues at the REMARKS section of the November 21, 2007 amendment that the described use in the specification of an applicator roll, an inner roll and an outer roll is a gate roll coater as known in the art, citing pages 192 and 193 of a Japan Technical Association document as to this effect. The Examiner has reviewed this material, however, it does not provide evidence that the described roller system in the specification must be a gate roll coater. The Figure 4.31 KCM roller, for example, has a three roll system with an inner roll, outer roll and applicator roll (on each side of the paper). Thus, this transfer roll set up reads on the transfer roll described in the specification. While a gate roll coater as shown in figure 4.34 can be a three roll system, there is no indication that that is the only type of multi (or three) roll coater system usable to print paper, as again shown by the figure 4.31 system. The Examiner also notes the previously cited Massey patent (US 2185859) also has a three roll system. Arguments about the relative size and speed of

the rollers are not supported by what is described in the specification with regard to the use of transfer rollers (page 4, page 13 of the specification). Therefore, there is no support in the disclosure as originally filed for using a specific "gate roll coater" and there is further no requirement that a system with an applicator, inner and outer roll is necessarily a "gate roll coater". As a result, the specific claiming of a "gate roll coater" is new matter.

In the amendment of September 25, 2008, applicant further argues that the transfer roll disclosed on page 13 of the specification is inherently a gate roll coater, arguing that the gate roll coater differs from the KCM coater where the size of the distributing roll is smaller than the other two rolls, and thus one skilled in the art would recognize that a transfer roll coater as described in the specification is a gate roll coater. The Examiner disagrees with this position because (1) applicant has made no showing that gate roll coaters must have the inner/outer gate rolls the same size. As discussed in MPEP 2145 (I), "The arguments of counsel cannot take the place of evidence in the record. In re Schulze, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965); In re Geisler, 116 F.3d 1465, 43 USPQ2d 1362 (Fed. Cir. 1997) ("An assertion of what seems to follow from common experience is just attorney argument and not the kind of factual evidence that is required to rebut a prima facie case of obviousness.")". (2) Secondly, the description of the transfer roll coater system at page 13 of the specification does not indicate that the inner roll and outer roll must be the same size, so even if gate rolls

used inner/outer rolls of the same size, the specification does not have this requirement as to the generic "transfer roll coater."

(B) In new claim 19, last two lines, "a starch in an amount of 2.0 parts by weight or less" is claimed. However, disclosure as originally filed only supports the starch in an amount "less than 2 parts by weight" (see page 9, lines 18-20, page 7, lines 4-5 of the specification, and original claims 1 and 5) when providing paper for offset printing. Therefore, the providing of the range to include an amount of 2.0 parts by weight is new matter.

The other dependent claims do not cure the defects of the claims from which they depend.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 19-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19, line 3, "a transfer paper" is referred to. However, there is no indication as to what is meant by "transfer paper" and the specification refers to a "base paper" being used (see page 6, line 19, original claims 2 and 5), and it is unclear what would be

required by such a paper. For the purpose of examination, the Examiner has treated the "transfer paper" as "base paper".

The other dependent claims do not cure the defects of the claims from which they depend.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wurster et al (US 6197155).

Claim 19: Wurster teaches a method for producing coated paper for printing. Column 1, lines 3-5. The coated paper is for offset printing. Column 1, lines 3-5. A coating color containing a pigment and an adhesive (binder) is applied to a base paper. Column 2, lines 50-65 and column 3, lines 5-15. The coating color application method can be roll coating methods such as the Massey coater (which is inherently a transfer roll coater method) or a metering size press. Column 4, lines 20-30. The coating weight can be 7 g/m^2. Column 4, lines 40-45. The coating color contains adhesive (binder) in an amount of 3-18 percent by weight (3-18 parts by weight of the pigment). Column 3, lines

5-40 and column 6, lines 43-50. This overlaps with the claimed 5-50 parts by weight, and In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). The coating color can further contain, for example, 1 wt % polyvinyl alcohol (PVA) in relation to coating pigment (1 part by weight PVA to 100 parts by weight of the pigment). Column 2, lines 60-65 and column 6, lines 43-45 (the range of 1-4%, column 2, lines 60-65, for example, overlaps with the claimed 0.1 to 1.0 range, and In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976)). The polyvinyl alcohol can be in addition to other adhesive, and thus serves as an auxiliary to the extent claimed. Column 2, lines 55-68 and column 3, lines 20-40. The amount of starch present can be 0 percent, thus providing less than 2.0 parts by weight of starch as an adhesive. Column 3, lines 30-40 (and the range of starch can be 0-10 weight percent, which overlaps with the claimed 2.0 wt% or less, and In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976)).

Claim 20: the coating color can be 18 weight percent adhesive (binder) in relation to coating pigment (18 parts by weight of adhesive based on 100 parts by weight of the pigment) or less, from the optimization of the range given. Column 3, lines 10-25.

Claim 21: the starch can be considered part of the adhesive (binder). Column 3, lines 15-25.

Claim 22: the adhesive can be styrol (the Examiner takes Official Notice that this is another term for styrene)-butadiene (thus is styrene-butadiene). Column 3, lines 15-20.

Claim 23: the coating color can be 65 weight percent solids, for example, from the optimization of the 30-65 wt% given, as In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). Column 4, lines 20-25.

8. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wurster as applied to claims 19-23 above, and further in view of Japan 11-050392 (hereinafter '392).

Wurster teaches all the features of this claim except that the transfer roll coater has an inner roll, an outer roll, and applicator roll, the coating speed of 1000 m/min or more, the peripheral speed of the inner and outer roll to the applicator roll is 50-95%, and the application without misting or boiling

However, '392 teaches that when making coated paper for offset printing by coating with pigment and adhesive, it is desirable to use a gate roll coater with an applicator roll, an inner roll and an outer roll. See the abstract. Furthermore, it is desirable for the inner and outer roll speed to be 50-80% of the applicator roll. See the

abstract. The adhesive can include polyvinyl alcohol. Paragraph [0017]. The coating speed can be 1200 m/min. Paragraph [0026].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wurster to use a gate roll applicator system and coating speed of 1200 m/min, for example, as suggested by '392 with an expectation of providing a desirable and speedy transfer roll coating system because Wurster teaches that roller application systems can be used (not limited to Massey coater, column 4, lines 20-30) to apply a coating system of pigments and adhesive to a paper surface and '392 teaches that a desirable roll coating system for applying a coating system of pigments and adhesive to a paper surface includes gate roll coaters and that such a gate roll coater would use an inner, outer and application roll and that desirable coating speeds for such systems would be 1200 m/min. Furthermore, it would have been desirable to use such a system with a peripheral speed ratio of the inner/outer roll to the applicator roll of 50-80% as suggested by '392 as a desirable speed ratio when using such a gate roll system. As a result of providing the claimed coating conditions and coating material features, the misting and boiling would also be prevented, as the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

9. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wurster et al (US 6197155) in view of Hayasaka et al (US 5972167) and Japan 11-050392 (hereinafter '392).

Claim 5: Wurster teaches a method for producing coated paper for printing. Column 1, lines 3-5. A coating color containing a pigment and an adhesive (binder) is applied to a base paper. Column 2, lines 50-65 and column 3, lines 5-15. The coating color contains, for example, 1 wt % polyvinyl alcohol (PVA) in relation to coating pigment (1 part by weight PVA to 100 parts by weight of the pigment). Column 2, lines 60-65 and column 6, lines 43-45 (the range of 1-4%, column 2, lines 60-65, for example, overlaps with the claimed 0.1 to 1.0 range, and In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976)). The coating color application method can be roll coating methods such as the Massey coater (which is inherently a transfer roll coater method) or a metering size press. Column 4, lines 20-30. Moreover, Wurster teaches that the resulting paper is essentially independent of the type of coat application process. Column 4, lines 25-35. The coating weight can be 7 g/m^2. Column 4, lines 40-45. The coated paper is for offset printing. Column 1, lines 3-5. The polyvinyl alcohol can be in addition to other adhesive, and thus serves as an auxiliary to the extent claimed. Column 2, lines 55-68 and column 3, lines 20-40. The amount of starch present can be 0 percent, thus providing less than 2.0

parts by weight of starch as an adhesive. Column 3, lines 30-40 (and the range of starch can be 0-10 weight percent, which overlaps with the claimed less than 2.0 wt%, and In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976)).

Claim 6: the coating color can be 18 weight percent adhesive (binder) in relation to coating pigment (18 parts by weight of adhesive based on 100 parts by weight of the pigment) or less, from the optimization of the range given. Column 3, lines 10-25.

Claim 7: the coating color can be 20 g/ m^2 total weight, on both sides, with the coating mass spread roughly uniformly on both coat applications, thus providing roughly 10 g/ m^2 on each side of the base paper, which is more than 7 g/ m^2 on each side. Column 4, lines 45-55.

Wurster teaches all the features these claims except that a "gate roll coater" system is used (with application, inner and outer rolls),the coating speed of 1100 m/min or more, and that the peripheral speed of the inner and outer roll to the applicator roll is 50-95%.

However, Hayasaka teaches that it is well known to use transfer roll coating processes to apply coating color (of pigment and adhesive) to a paper substrate to provide desirable paper for printing. Column 6, lines 5-30, column 7, lines 10-15 and column 3, lines 30-35. Hayasaka teaches that desirable transfer roll coating processes include metering size press coaters and gate roll coaters. Column 6, lines 30-35. The

gate roll coaters are described as using two gate rolls (which would provide an inner an outer roll) to supply coating color to the applicator roll. Column 6, lines 30-45. Hayasaka further teaches that the relative speed of the rolls in the gate roll coater system are controlled to provide desirable metering and application of coating. Column 6, lines 30-60. The gate roll coater system can be used to apply coating weight of 5-15 g/m2 per side. Column 6, lines 45-65. Hayasaka further teaches to use coating speeds of about 600 to about 1500 m/min, preferably between about 1000 and about 1500 m/min. Column 7, lines 1-5.

However, '392 teaches that when making coated paper for offset printing by coating with pigment and adhesive, it is desirable to use a gate roll coater with an applicator roll, an inner roll and an outer roll. See the abstract. Furthermore, it is desirable for the inner and outer roll speed to be 50-80% of the applicator roll. See the abstract. The adhesive can include polyvinyl alcohol. Paragraph [0017]. The coating speed can be 1200 m/min. Paragraph [0026].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wurster to use a gate roll applicator system and coating speed of 1100 m/min or more as suggested by Hayasaka with an expectation of providing a desirable and speedy transfer roll coating system because Wurster teaches that roller application systems can be used (not limited to Massey coaters) and that metering size press systems can be used to apply a coating system of pigments and adhesive to a paper surface and Hayasaka teaches that a desirable roll coating system

for applying a coating system of pigments and adhesive to a paper surface includes gate roll coaters and metering size presses and that such a gate roll coater would use an inner, outer and application roll and that desirable coating speeds for such systems would be about 1000 to about 1500 m/min, and as to the specific speed of greater than 1100 m/min, in the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). It would further have been obvious t to modify Wurster in view of Hayasaka provide that the peripheral speed of the inner and outer roll to the applicator roll can desirably be 50-80% of the applicator roll as suggested by '392 with an expectation of providing a desirable and speedy transfer roll coating system because Wurster in view of Hayasaka suggests gate roll coating of paper with pigment and adhesive for offset printing with Hayasaka teaching that the relative speed of the rolls in the gate roll coater system are controlled to provide desirable metering an application of printing and '392 teaching gate roll coating of paper with pigment and adhesive for offset coating and that it is desirable for the inner and outer roll speed to be 50-80% of the applicator roll.

10. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wurster et al (US 6197155) in view of Japan 11-050392 (hereinafter '392).

Claim 5: Wurster teaches a method for producing coated paper for printing. Column 1, lines 3-5. A coating color containing a pigment and an adhesive (binder) is

applied to a base paper. Column 2, lines 50-65 and column 3, lines 5-15. The coating color contains, for example, 1 wt % polyvinyl alcohol (PVA) in relation to coating pigment (1 part by weight PVA to 100 parts by weight of the pigment). Column 2, lines 60-65 and column 6, lines 43-45(the range of 1-4%, column 2, lines 60-65, for example, overlaps with the claimed 0.1 to 1.0 range, and In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976)). The coating color application method can be roll coating methods such as the Massey coater (which is inherently a transfer roll coater method) or a metering size press. Column 4, lines 20-30. Moreover, Wurster teaches that the resulting paper is essentially independent of the type of coat application process. Column 4, lines 25-35. The coating weight can be 7 g/m^2. Column 4, lines 40-45. The coated paper is for offset printing. Column 1, lines 3-5. The polyvinyl alcohol can be in addition to other adhesive, and thus serves as an auxiliary to the extent claimed. Column 2, lines 55-68 and column 3, lines 20-40. The amount of starch present can be 0 percent, thus providing less than 2.0 parts by weight of starch as an adhesive. Column 3, lines 30-40 (and the range of starch can be 0-10 weight percent, which overlaps with the claimed less than 2.0 wt%, and In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976)).

Claim 6: the coating color can be 18 weight percent adhesive (binder) in relation to coating pigment (18 parts by weight of adhesive based on 100 parts by weight of the pigment) or less, from optimization of the range given. Column 3, lines 10-25.

Claim 7: the coating color can be 20 g/ m^2 total weight, on both sides, with the coating mass spread roughly uniformly on both coat applications, thus providing roughly 10 g/ m^2 on each side of the base paper, which is more than 7 g/ m^2 on each side. Column 4, lines 45-55.

Wurster teaches all the features these claims except that a "gate roll coater" system is used (with application, inner and outer rolls), the coating speed of 1100 m/min or more and the peripheral speed of the inner/outer roll to the applicator roll.

However, '392 teaches that when making coated paper for offset printing by coating with pigment and adhesive, it is desirable to use a gate roll coater with an applicator roll, an inner roll and an outer roll. See the abstract. Furthermore, it is desirable for the inner and outer roll speed to be 50-80% of the applicator roll. See the abstract. The adhesive can include polyvinyl alcohol. Paragraph [0017]. The coating speed can be 1200 m/min. Paragraph [0026].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wurster to use a gate roll applicator system and coating speed of 1200 m/min, for example, as suggested by '392 with an expectation of providing a desirable and speedy transfer roll coating system because Wurster teaches that roller application systems can be used (not limited to Massey coaters) to apply a

coating system of pigments and adhesive to a paper surface and '392 teaches that a desirable roll coating system for applying a coating system of pigments and adhesive to a paper surface includes gate roll coaters and that such a gate roll coater would use an inner, outer and application roll and that desirable coating speeds for such systems would be 1200 m/min. Furthermore, it would have been desirable to use such a system with a peripheral speed ratio of the inner/outer roll to the applicator roll of 50-80% as suggested by '392 as a desirable speed ratio when using such a gate roll system.

Response to Arguments

11. Applicant's arguments filed September 25, 2008 have been fully considered but they are not persuasive.

As to the combination of Wurster with Hayasaka and Japan 11-050392; and Wurster with Japan 11-050392, applicant argues that the combination of cited art does not provide the claimed method with the gate roll coater, coating speed and peripheral speed of inner and outer roll to applicator roll as claimed, as this combination provides specific advantageous effects, and that Hayasaka and '392 do not provide the deficiencies of Wurster. Applicant argues that Hayasaka does not provide the use of polyvinyl alcohol as claimed, and uses large amounts of starch, outside the claimed requirements, and provides no suggestion that the claimed coating color or color of Wurster can be applied at the claimed coating speed of the present invention. As to '392, applicant further argues that it also provides a high starch coating, and it would

not have been obvious to apply the claimed coating color at the claimed coating speed and claimed ratio of inner/outer roll speed to application roll speed. Applicant further argues that the features of claims 6 and 7 are also not provided by the cited art in combination with the features of claim 5.

The Examiner has reviewed these arguments, however, the rejection is maintained. As to the benefits of the exact claimed combination of ranges of materials used by applicant in combination with the use of the gate roll coating and speed, applicant has made no showing of unexpected benefits as to printablity, blister resistance and gravure aptitude or other coating features in general, commensurate scope with the invention as claimed since, for example, none of the examples in the specification are indicated as being performed with a gate roll coater, nor are examples shown as to the precise claimed range of polyvinyl alcohol and starch. As discussed in MPEP 716.02(d), a showing of unexpected results must be commensurate in scope with the claims in order to rebut a prima facie case of obviousness. As to the polyvinyl alcohol amounts and coating weight, Wurster clearly provides amounts that overlap with what is claimed, and as discussed in the rejection above, In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976)); which prima facie case obviousness has not been overcome by applicant's examples, as a showing of unexpected benefits commensurate in scope with the invention as claimed as not been made, as previously discussed. While an example may provide 2 wt%

polyvinyl alcohol, the specification of Wurster provides the use of 1-4 wt%, for example (see column 2, lines 60-65) and even 0-5 wt% (see column 3, lines 35-40), which overlaps with the amount claimed, and as discussed in MPEP 2123, "Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. In re Susi, 440 F.2d 442, 169 USPQ 423 (CCPA 1971)." As to the use of the gate roll coater and claimed speeds, the Examiner has provided Hayasaka (in the first rejection of claims 5-7), as to the desirable use of these speeds. While Hayasaka is directed to coating a specific material, it also teaches desirable roll coating processes used in coating color of pigment and adhesive to a paper substrate of materials overlapping in coating weight. Since Wurster teaches using roll coating processes in general (column 4, line 25) (while Wurster describes the use of a Massey roll coater, it is not limited to such roll coating methods (". . . roller application devices such as the Massey coater. . ." –column 4, lines 25-26, emphasis added)), one of ordinary skill in the art would clearly look to the art of coating materials with pigment and adhesive by roll coating to determine desirable roll coating processes and speeds to use. Therefore, Hayaska is clearly an analogous and relevant piece of art to use. As to the use of '392, similarly, since Wurster teaches using roll coating processes in general (column 4, line 25), one of ordinary skill in the art would clearly look to the art of coating materials with pigment and adhesive by roll coating to determine desirable roll coating processes and speeds to use. Therefore, since '392 is also directed to making coated paper for offset printing, with coating with pigment and adhesive, and teaches a

desirable roll coating method, '392 is clearly an analogous and relevant piece of art to use. As to the use of starch/polyvinyl alcohol changing the expectation of speeds at which coating occurs, one of ordinary skill in the art would not expect that the amount of starch would change possible coating speeds, given that Wurster, for example, allows wide varieties of adhesive material (column 3, lines 10-40) including starch and polyvinyl alcohol or not, and instead discusses controlling the solids content of the slurry for application (column 4, lines 20-25). Note also that '392 also discusses that high speed for coating liquid can be provided by control of features other than starch or polyvinyl alcohol amounts in the coating. See paragraph [0010] -- controlling concentration or viscosity is also known. Thus, one of ordinary skill in the art would expect that the roll coating system of Haysaka and/or '392 would be successfully used with the coating material described by Wurster. As to claims 6 and 7, Wurster provides the suggestion of these features as discussed in the rejection above, at the features of claim 5 remain suggested for the reasons discussed above.

As to new claims 19-24, they are rejected for the reasons discussed in the rejection above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine A. Bareford whose telephone number is (571) 272-1413. The examiner can normally be reached on M-F(6:00-3:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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